



Hackpack

Preface

Sometimes a project develops differently than you expected. So I hadn't even planned the Hackpack yet, and yet it keeps reaching for me with its cold fingers and forcing me to further development. Sometime in 2017 I published the [Ink Pancel Case](#) on my website. Since I had bought two table runners, I sewed a backpack out of the other one. Very simple design. Minimalistic and functional. Since I didn't want to advertise the manufacturer from Sweden, I didn't make any documentation or photos. I declared it in my head as a private project and since nobody was interested in the backpack, I accepted it that way. Until one day.

A very good friend of my roommate and I came home from Berlin to stay for a weekend. During this time I had left my room for the night, so she didn't have to take a hotel. I have no problem sleeping on a mattress in the study for a few days. We talked about her new book (Dina Dorothea & Christopher Falbe, *Architekturen des Gebrauchs*, Weimar: M BOOKS, 2017), which she had published with her husband. Since we hadn't seen each other in ten years, there was a lot to tell. At some point she saw the backpack I made and she liked it very much. We talked about how I didn't want to sew it again to sell her one and she suggested to make a documentary so she could sew this backpack at home in Berlin.

I usually have no problem saying no, but with Dina it's very hard for me. She is one of the few people on this planet whom I like with all my heart and who understand me very well on an intellectual level. So I packed her a zipper and the two straps and told her where she could buy the table runner. I was reluctant to go shopping in Sweden, but I also had to think about talking to a roommate. Unfortunately I tend to perfection and I always want to develop the best product of the [universe](#). It should be environmentally friendly, natural, without chemicals, gently produced and what else do I know. My demands are utopian. Unfortunately, I can neither afford such material for my bag nor can I monitor the production process. If I want to publish a documentary, I will have to take whatever I have at hand. I have to learn to walk in small steps.

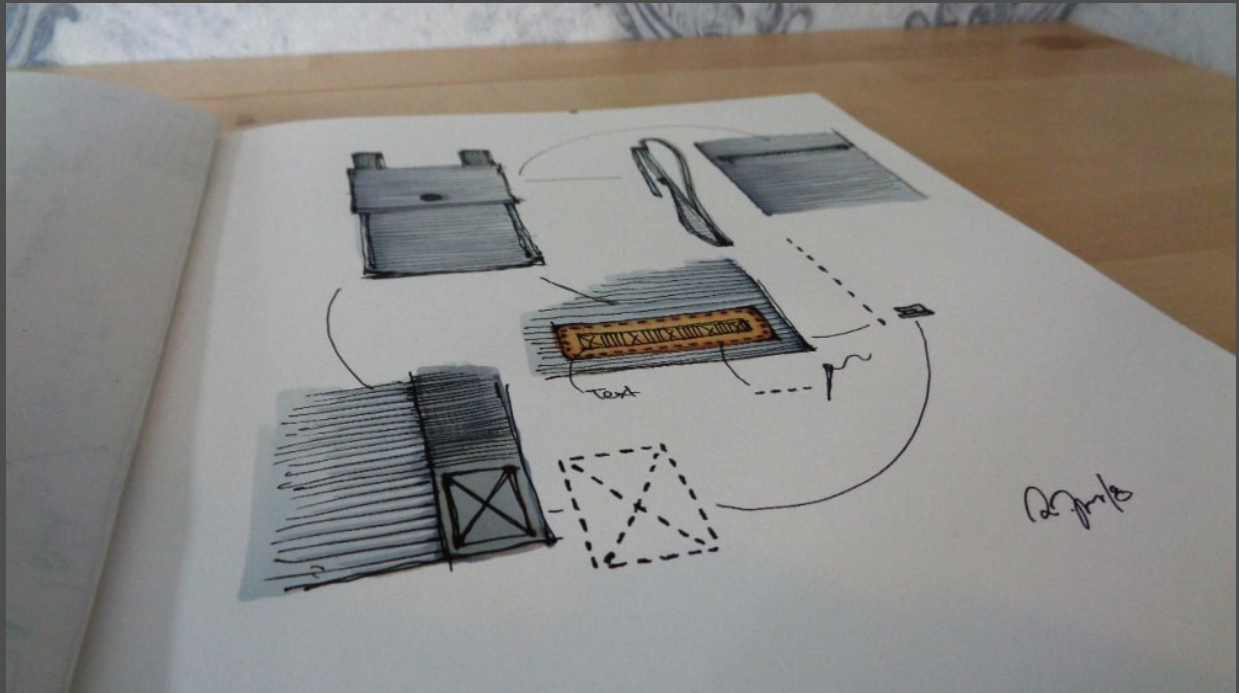
But there is another advantage to publishing this documentation. When people build this backpack, they can change it to suit their needs and hack it. It is then up to you what materials you buy. Vegan fabric from the shell of avocados against cheapest plastic. It's your decision, and I'm not telling you any more about it. Also, the second version really gives me a lot of new ideas that I want to try out. Since all information on my website may be used legally for private use, you don't have to worry about being on a legally insecure site. I will still keep an eye on the Swede, not that any surprises await me. The Hackback is now version 0.2 and I will develop it further.

Materials

We don't need much material. One button, two strong belts made of solid fabric, the table runner, a slightly longer zipper and a sewing machine. The machine should be fully equipped, therefore a small pair of scissors, black thread, sewing needles etc. must be included. Since this project is not suitable for beginners anyway, but rather for advanced seamstresses*.



Since I had already created the previous model 0.1 and tested it for a long time, I didn't have to create a large drawing. It was enough if I recorded the places which caused problems. I also remembered when I wanted to work with the needle or the sewing machine.



- Sewing machine
- Table runner
- Zipper
- Button
- Strong belts (2m)
- Scissors
- Sewing needles
- Black yarn
- Measuring tape
- Tailor's chalk

Realisation

Since this is a somewhat larger project again, I have photographed all steps again and will explain them in more detail. Since I sometimes took my first backpack as a model, I will also explain some places in such a way that this is suitable for people who only have a tape measure. Unfortunately I forgot the photos for the margins or they didn't turn out. So there is a small gap and I apologize for that, but I will mention it again in the appropriate place. With zippers it is not absolutely necessary to cut off the corners diagonally. I tried this and I don't like it anymore. Before, I had just cut it off and think it's nicer afterwards. I will go into the subject in more detail in the conclusion.



Before we start the actual work, we cut the sign from the carpet runner with a sharp handcraft knife. Not only does it look shabby and spoil our design. As this is a private project we do not need the information on the sign. We lift slightly with the edge at the end of the fabric and slowly scratch the white sign. We do this very slowly, because otherwise we can destroy our work material and then no longer use it. The result should look like the photo above.



Now we have to measure the length of the back of the backpack. As you can see on the first photo, I could use my first model. So that I know what the front and what the back is, I made myself a small cross there with the tailor's chalk, so that later the button should be approximately. Most

people will measure the tape measure up to 54.5 cm in length. This is the exact length that I determined after one day and has best supported the design so far. I have roughly oriented myself on the golden ratio (*sectio aurea*, *proportio divina*), but will have to calculate it again in a later model



In this picture we see that I folded the table runner backwards. On the underside, which now touches the work table, we will attach the risers. The three sides that are still open are sewn up and closed later in the documentation so that we have a complete backpack. Since the tailor's chalk is very easy to wash out, we don't have to worry that it can't get out of the fabric. And as we will see later, this marker will be very useful to us.

Before we do anything else, we'll turn the table runner around and you'll say exactly what I'm doing. Don't think, don't be creative. Just do what I say. Now take the right side of the table runner with both hands and turn it to the left to the other side. The cross is now on the lower side and touches (we can't see it, but it is) the work table. We don't change the length or somehow flip the right side over. Just turn around. Nothing more. **This is a very important step and if you make a mistake here, you will inevitably build on that mistake and sew everything wrong.**





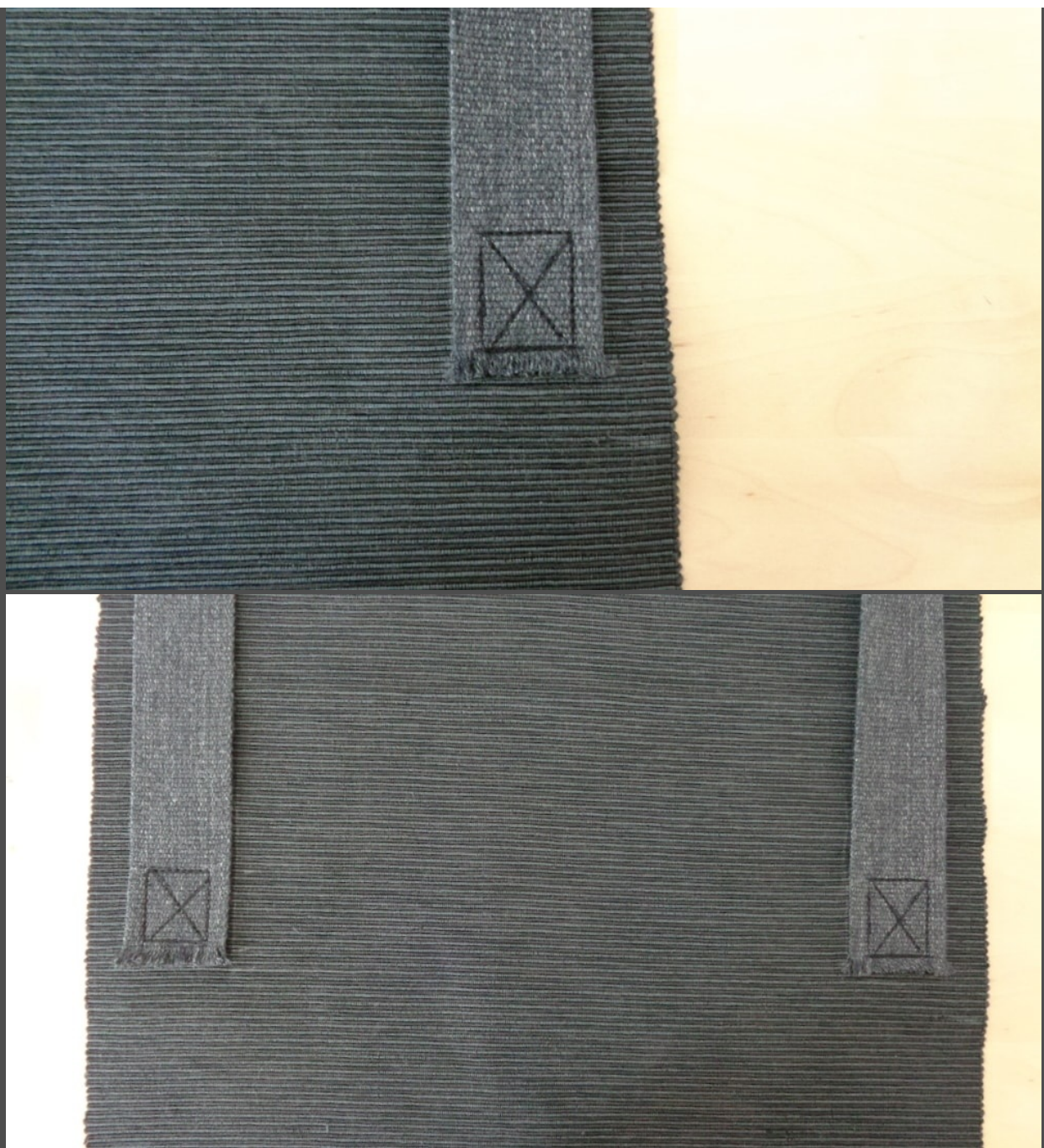
Since a backpack is not much use without belts, we have to cut them to the right length. After a few tests the length of 75 cm turned out to be the most comfortable. But since I only had a few humans as guinea pigs, the length can't fit you. In this case it is best to measure the belt length of a backpack you bought before. You must be right about that. Mark the end with the tailoring chalk and cut it straight with good scissors.



We put the belt straight at the lower right end. There is a gap of 1.5 cm to the lower edge (right). There is a distance of 2 cm to the outside (on the picture above). There are several reasons why

we are leaving a little more space here. The backpack has to bulge a little at the bottom so that it does not tear immediately. We will sew the edges on the sides and need space for this. As already seen above, we mark everything here again with the tailor's chalk so that you belts are sewn on to the right places. On the opposite side we do it once again only mirror-inverted.





Now comes the difficult part of the project. Sewing on the straps. The best way to sew is up to you, because everyone has his own technique. I sew a square and then draw diagonal lines, similar to the [Nikolaus puzzle](#) without a roof. I have had the best experiences with this technique so far and it turned out to be most durable when wearing it. The boxes are 3 cm high and on the right, left and bottom side I left a space of 1 cm. I did not measure this with a tape measure, however, but estimated it roughly with my eyes.





After we have sewn the two tapes on one end, we have to fix the other ends. To do this, we turn the backpack over so that the finished straps are on our side. So that we do not have to measure everything again, we simply copy what we have already created and save ourselves work. Please make sure that the ribbons are twisted around their own axis when drawing with the tailor's chalk. This has to look like the photos, because this time we have to sew the opposite side of the ribbon, which is a little more complicated. With a little practice, however, this can be achieved. It also helps if you go through the individual steps in your mind again until you have really understood it yourself. This can reduce mistakes and annoyance.

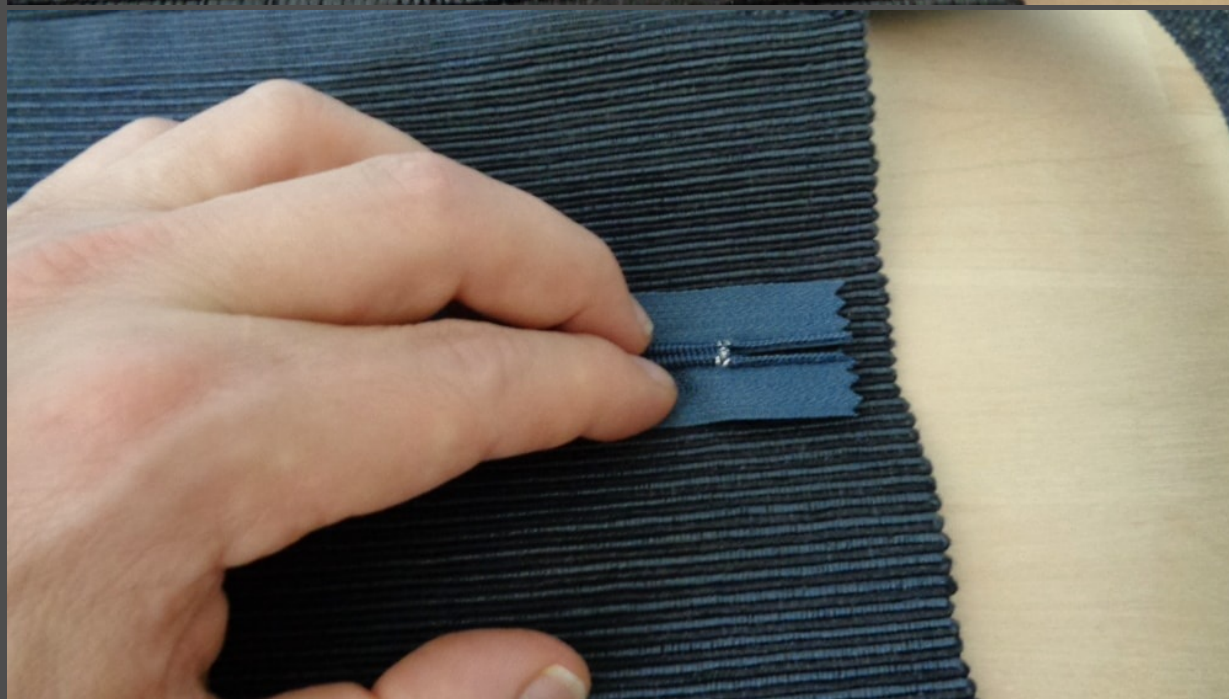


Two more little tips for sewing. If we put the belt over the machine, it will twist less and get in our way. We will have to work more carefully, but this is better than under the sewing machine as

usual. I also set a cross seam, so it should be a little safer. Should the belt tear us off because we put too many things in the backpack that could happen. I did not do this on the other ends of the tapes, but I will introduce it in the future.



The first part is done and in the next steps we will sew in the zipper, attach the button and close the bag completely. If you look at everything carefully, it's not a lot of work to develop a backpack. The basic form is always the same. We have a bag that can be closed with a lid. In addition a closure mechanism, which can consist of a zipper or tape and one or more straps to carry the backpack on the body.





There are many ways to close a backpack and I prefer a classic zipper for this model. There's not much you can do, and since it's hidden under the lid most of the time we don't see it quite as often. The opening goes to the side where we made the little white cross. To the upper edge we have 8 cm space and to both sides 3 cm. The heel between the outer edge and the small piece of metal of the zipper is measured.





At this point a hint you should pay attention to. I have drawn small diagonal lines from the corners to the middle of the zipper. I had seen this in a tutorial video and wanted to test this idea. Overall, this material is not a good conversion because it quickly dissolves into its components at the edges. I also cut out another 1 cm wide strip in the middle. This should also be avoided. So you should only make two short cuts on the sides and sew a long one in the middle and then as shown in the photos below.





We can now choose whether we want to sew the right or left side first. We'll just put some lines on the sewing machine until that's durable enough. Here again I can't offer a godparent solution and people have to see for themselves how firm they want it. I'd rather do too much than too little. After we have sewn "only one" side, it's time for the long sides. We sew as close to the plastic as possible, because at this point zippers like to tear in quickly and get holes. Then comes the other short piece and we are already done here. Don't be surprised if it doesn't work out so well the first time. You have to do this more often to get a routine at work.





We are approaching the end of the documentation, because we can already sew the edges. We'll do the pages first, because if we make a small mistake, we can fix it. In many tutorials we see that most pockets are sewn and then put over themselves to make the seam look more orderly. I left that extra on this model so that it looks so beautifully frayed at the edges. this gives the backpack a light urban look. We take care that the straps on the back are not sewn together with the edges.





Here we see once again the results in detail. We have to work slowly and neatly on the edges, because the fabric moves quickly (I have to work on a solution again, because that really bothers me personally). After a few minutes I found the diagonal cuts on the zipper really ugly, but that's my personal taste. Whoever thinks that is beautiful can put it into practice. All in all I have to test even more with zippers, maybe I use imitation leather as an element. This could increase stability.





Since the zipper is exactly 30cm long, we measure the length of 15 cm with a tape measure. Here we draw a small line with the tailor's chalk. From there we go down 8 cm and make a new cross. As you can see on the photos, I was not too wrong with my estimate at the beginning of the documentation. I chose a big black button for my backpack, but you don't have to imitate it. A button made of wood or another material is also possible. Fashion design is also always a good opportunity to try out your own ideas.





To sew on the button, I used thread that had come off when I sewed the zipper. This not only saves me money, but also the style of the whole bag. It then looks as intended and adapts to the entire design and thus appears more uniform. There are the little tricks to remember, because you can recognize an old hand from a greenhorn.





In the next step we put the lid over the button and press the fabric firmly. On the sides we draw small lines where we make the cuts. We sew the edges and already we have the opening for our button. We're done with that and we sewed our first bag of our own. The documentation should not be so difficult, although it can be complicated for beginners. In any case, you should take at least a whole day (preferably on weekends) so that you can work in peace.

Conclusion

I learned a lot in this documentary. For example, you should not just take over techniques from tutorial videos, because your own project is always different. The materials are always different in nature. The part with the zipper bothers me the most and I will make some important changes in version 0.3. Also the solution with the button looks good, but I would like it to be more minimalistic. I also want to reduce the number of work steps and establish the backpack as the ideal model for a bag. In the development of a prototype you always have a lot of work and you always have to discard or modify ideas. Plus, I'm a rookie. The best way to learn tailoring is to practice daily. That's the only way to get it to a championship.